# 802.11a Wireless LAN Outdoor AP/Extender

## Highly Reliable Outdoor Device

The WAP-7500 is quite suitable for wireless LAN applications in widely open space, exposed and long distance locations. With its **IP-67** casing protection, the WAP-7500 can perform normally under rigorous weather conditions including heavy rain and wind. With the standard 802.3af Power over Ethernet (PoE) design, the WAP-7500 can be easily applied in the areas where power outlets are not available. The best application of the WAP-7500 is to build outdoor wireless network between buildings on campuses, business, rural areas and etc.

## Long Distance Wireless with Excellent Performance

PLANET Technology introduces the latest long distance outdoor 5GHz wireless LAN solution, the WAP-7500, the outdoor wireless AP/Extender that provides **higher transmit power**, **better performance**, and **less interference**. The WAP-7500 is compatible with **IEEE 802.11a** to deliver an affordable and reliable rural connectivity solution. The WAP-7500 not only has built-in 23dBi panel Antenna but also reserves one N-Type External Antenna Connector to allow stronger antenna upgrades. Moreover, it adopts TDMA and link aggregation technologies; therefore, its wireless extensibility can reach at least 40km while ensures transmission quality.

## Multiple Operation Modes

The WAP-7500 supports multiple operation modes including **Base Station**, **CPE, Relay**, **Point to Point**, and **Point to Multiple Point** to conveniently configure versatile solutions in a wide range of wireless scenarios. The WAP-7500 can have relay setting when two devices connect to each other without affecting wireless performance. It also supports Super mode for fast frames, bursting compression to enhance the throughput.

## Advanced Security and Management

In aspect of security, besides 64/128/152 bits WEP encryption, the WAP-7500 integrates WPA / WPA2, WPA-PSK / WPA2-PSK authority to secure and protect your wireless LAN. Furthermore, the WAP-7500 is easily to be managed and configured remotely by its user-friendly Web and SNMP-Based management interface.

## KEY FEATURES

- IEEE 802.11a standard compliant
- Wide delivery of 5GHz wireless network and better connections with less interference
- Dual-Radio: Built-in 23dBi panel Antenna, and one External N-Type Connector
- Adopts TDMA and link aggregation technologies
- IEEE 802.3af Power over Ethernet compliant
- IP-67 casing protection against rigorous weather conditions
- Wide range of temperature tolerance for low or high temperature environment
- High Transmit Output Power up to 1000mW with multiple adjustable transmit power control
- Multiple operating modes including Base Station, CPE, Relay, Point to Point, and Point to Multiple Point
- Operates on bridge and relay modes concurrently
- Supports 64/128/152-bit WEP and WPA, WPA2, WPA-PSK, WPA2-PSK Authentication
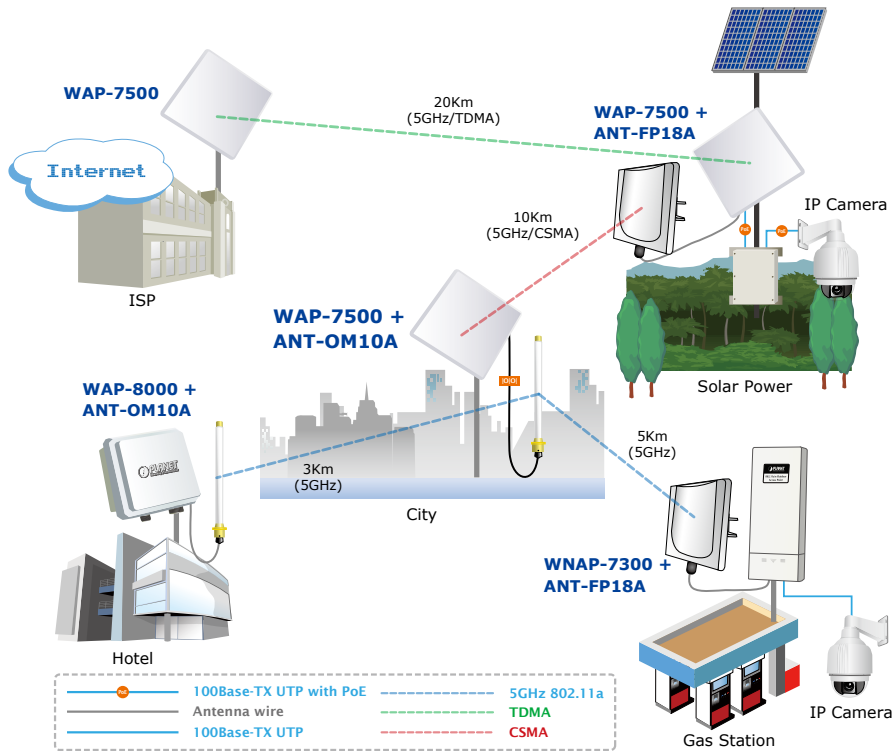- User-friendly Web and SNMP-Based management interface

Data Sheet

## APPLICATIONS

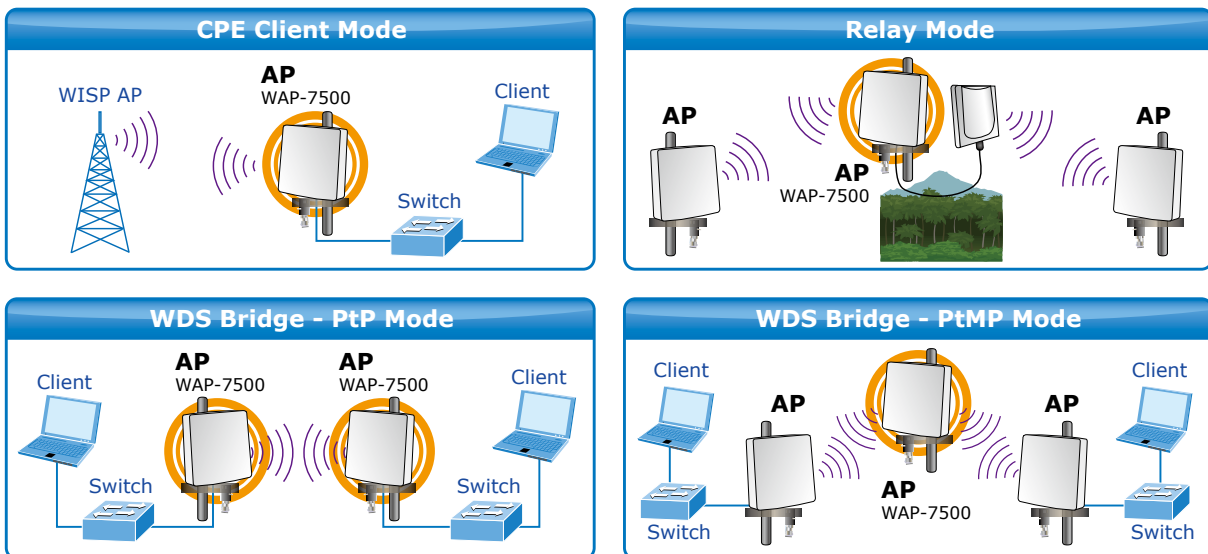*Higher coverage & long distance between LAN connections*

The WAP-7500 is a cost-effective outdoor wireless solution for widely open space applications. It is best suitable to outdoor wireless connections between buildings.

With Multiple Antenna choices and adjustable output power controller, the WAP-7500 provides higher coverage and long distance wireless connection and also allows CPE users to easily install and adjust the suitable value in appropriate locations.

**Sincerely suggest matching the same model in outdoor wireless bridge application for getting best performance.



*The WAP-7500 supports multiple operation modes to conveniently configure versatile solutions in a wide range of wireless scenarios.*

## SPECIFICATION

| Product | 802.11a Wireless LAN Outdoor AP/Extender |
|---|---|
| Model | WAP-7500 |
| **Hardware Specification** | |
| Standard Support | IEEE 802.11a<br>IEEE 802.3u |
| Network Interface | LAN: 1x 10/100Base-TX RJ-45, Auto-MDI/MDIX<br>IEEE 802.3af Power over Ethernet PD compliant |
| Interface | RS-232 (COM): 1x RS-232 (UART) in RJ45 Form Factor |
| IP Level | 67 |
| Power | IEEE 802.3af Power over Ethernet (Output 20Watts, 48V/0.4A) |
| **Wireless Interface Specification** | |
| Wireless Technology | IEEE 802.11a compliant |
| Data Rates | 802.11a: 54/48/36/24/18/12/9/6Mbps |
| Antenna | Internal: 23dBi (Default for FCC)<br>  HPBW (Horizontal): 10 degree<br>  HPBW (Vertical): 10 degree<br>External: 1x N-type Connector |
| Frequency Range | FCC:<br>  5.725 ~ 5.850 GHz<br>CE :<br>  5.470 ~ 5.600 GHz<br>  5.660 ~ 5.725 GHz<br>  (Programmable for different country regulations) |
| Channel Spacing | 40/20/10/5 MHz |
| RF Output Power | 24dBm at Radio for FCC (Band 4)<br>30dBm EIRP for ETSI 301 893 (Band 3)<br>(Controllable for different country regulations) |
| Receiver Sensitivity | 6Mbps: -90dBm<br>54Mbps: -73dBm |
| Modulation | OFDM with BPSK, QPSK, 16-QAM, 64-QAM |
| **Management Feature** | |
| Management | Web-Based Management (Secure SSL)<br>Command Line Interface(SSH)<br>SNMPv2<br>Windows-Based Utility |
| Firmware Upgrade | Web / Windows management tool |
| Operation mode | ■ Base Station<br>■ CPE<br>■ Relay<br>■ Point to Point<br>■ Point to Multiple Point |
| Radio Bandwidth Control | 5/10/20/40MHz |
| Super Mode | Enable it for Fast Frames, Bursting Compression |
| TDM Coordination | Traffic Management |
| Link Aggregation | Throughput Enhancement |
| TDMA | For long distance transmission |
| Distance in Meters | Auto ACK-Time adjustment |
| Wireless Isolation | Yes |
| Management Statistics | Wireless and Ethernet |
| Link Test | Self-Wireless Connection test |
| Wireless Security | 64/128/152-bit WEP, WPA, WPA-PSK, WPA2, WPA2-PSK |
| User Authentication | HTTPS login<br>802.11i (WPA, WPA2)<br>802.1x (EAP-TLS / TTLS)<br>802.1Q VLAN<br>Remote RADIUS server authentication |

| Output Power Control | Full, 50%, 25%, 12.5%, Min |
|---|---|
| WMM | 802.11e WMM (Wi-Fi Multimedia) |
| STP | Spanning Tree Protocol with Fast Forwarding |
| GPS Coordinate Setting | The GPS Coordinate Setting can mark the latitude and longitude of the device. |
| Diagnostic tool | System Log |
| **Environment** | |
| Operating Temperature | -30 ~ 70 Degree C |
| Operating Humidity | 10 ~ 95% non-condensing |
| **Certification** | |
| EMI | FCC: part 15, subpart B&C<br>CE: EN301 893(5G) |
| EMS | CE EN301 489-1/17 |
| Safety | EN60950 |
| **Accessory** | |
| Standard Accessories | ■ 48V / 0.4A 802.3af PoE injector x 1<br>■ AC Power cord x 1<br>■ Grounding Wire with screw x 1<br>■ Mounting Kit x 1<br>■ Water Proof RJ-45 Connector Kit x 1 |

## ORDERING INFORMATION

| WAP-7500 | 802.11a Dual RF Wireless LAN Outdoor AP |
|---|---|

## RELATED PRODUCT

| CB-STP-25 | 25 Meters STP Cat5 Cable |
|---|---|
| ELA-100 | Ethernet Lightning Arrest Box |

## ACCESSORIES

| ANT-OM10A | 5GHz 10dBi Omni-directional Antenna |
|---|---|
| ANT-SE17A | 5GHz 16.5dBi Sector Antenna |
| ANT-FP18A | 5GHz 18dBi Flat Panel Antenna |